

ABSTRACT OF SANITARY REPORTS.

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UNITED STATES.

SPECIAL REPORTS.

Cape Charles Quarantine—Smallpox patients.

Acting Assistant Surgeon H. M. Clarkson reports that 4 of the 5 variolous patients in hospital on Fisherman's Island were discharged and transported to Norfolk, Va., on April 15. One patient, who has had confluent smallpox, remains, and, while doing well, is not yet in condition to be allowed by the health authorities of Norfolk to be landed.

South Atlantic quarantine station—Blackbeard Island, Georgia—Arrival of infected vessels from Rio.

Passed Assistant Surgeon J. H. White reports as follows:

Norwegian bark *Alert*, from Rio de Janeiro, arrived at quarantine station April 18, 1891. One case of yellow fever (so called) at Rio. Condition of vessel dirty; probably infected.

Norwegian bark *Regina*, from Rio de Janeiro, arrived April 18. Ten cases of yellow fever while at Rio, and 2 cases at sea.

This vessel is, mechanically, the cleanest ever seen at this station, though badly infected. I have some suspicion that a seaman now aboard is either just convalescing or is taking the fever.

Quarantine regulations of Florida.

The president and secretary of the State board of health of Florida, under date of April 9, 1891, have transmitted a number of amendments to the quarantine regulations, the most important of which are as follows:

SECTION 4. Strike out this entire section and substitute as follows:
SECTION 4. All vessels from foreign or domestic ports where yellow fever may prevail, and seeking to enter any of the ports of the State of Florida between May 1 and November 15 of each year, and all vessels from foreign or domestic ports where cholera, smallpox, or other in-

fectious or contagious diseases may prevail, and seeking to enter any of the ports of the State of Florida at any and all times of the year, and all vessels in any port at any season of the year and upon which yellow fever, smallpox, cholera, or other infectious or contagious disease may be developed after arrival, shall, before they are permitted to land any passengers or crew, or load or unload cargo, or hold any communication with any other vessel or person or the shore, present to the port sanitary inspector of the port at which they may arrive a certificate from the medical officer in charge of the nearest quarantine or refuge station where the steam disinfecting process is in operation that said vessel and cargo and effects of passengers and crew have been thoroughly cleansed and disinfected according to the rules and regulations of this board, and that said vessel has been detained at said quarantine or refuge station for a term of not less than five days, or longer, if deemed necessary by the medical officer in charge of said station, after said disinfection, and that no case of yellow fever, smallpox, cholera, or other infectious or contagious disease has within that time developed among any of the crew or passengers in said vessel; and in case said vessel arrives in ballast, said certificate shall further state that the ballast of said vessel was discharged at said quarantine or refuge station before disinfection, and clean ballast, if necessary, taken at said station in lieu of the ballast discharged.

(a) Provided that said certificate shall be of a date subsequent to the leaving of said vessel from any foreign or domestic port infected with any contagious or infectious disease.

(b) No ballast brought into any port of the State of Florida shall be discharged in any such port, except at such point as may be designated in a permit granted by the port sanitary inspector of the respective port, appointed by the board or by the county board, with the approval of this board, and in case this board or its port inspector, or the port inspector of the county board in the port where said vessel may arrive, deem it expedient for the preservation of the public health to require fumigation and disinfection of vessels or discharge of ballast at quarantine station, the same shall be done at the expense of the vessel and in accordance with the rules and regulations of this Board.

SEC. 8. To this section add: Provided that nothing in this section shall be construed as prohibiting an agent of this State board of health in any foreign town or place where contagious or infectious disease exists from giving permission to any one coming from a healthy district outside of said town or place, and who has not been acclimated to yellow fever, to pass through said town or place, if said individual does not remain over night in said town or place; and provided further, that the immediate destination of said individual is north of the latitude of Washington, D. C.

Therefore in compliance with the above it is hereby announced that the period of quarantine detention and surveillance over vessels, passengers, cargo, and ballast from foreign or domestic infected ports will be enforced at all ports in the State of Florida on May 1, and will continue to and include November 15 of this year.

Vessels subject to quarantine restrictions destined to ports on the west coast of the State between Punta Rassa and Cedar Keys, including both of these ports, will report at the Mullet Key State Quarantine Station, Tampa Bay; for points beyond and west of Cedar Keys to the Escambia County Quarantine Station on Santa Rosa Island, and for

ports on the east coast to the United States Quarantine Station at Sappelo Sound.

Infected vessels and all others not exempted by the regulations, for points between Punta Rassa and Key West, including the latter port, will report at the United States Quarantine Station at Dry Tortugas, Florida.

Louisiana quarantine.

The governor of the State has issued the usual annual proclamation naming May 1 as the beginning of the active quarantine season and announcing the following regulations:

All vessels, together with their cargoes, crews, passengers and baggage, arriving at the Mississippi River Quarantine Station, from inter-tropical American and West Indian ports, shall be subjected to thorough sanitation according to the following schedule, to wit:

First class—Vessels arriving from non-infected ports.

Second class—Vessels arriving from suspected ports.

Third class—Vessels arriving from ports known to be infected.

Fourth class—Vessels, which, without regard to port of departure, are infected; that is to say, vessels which have yellow fever, cholera, or other contagious or infectious disease on board at time of arrival, or have had same on voyage.

Vessels of the first class to be subjected to necessary maritime sanitation at the Mississippi River Quarantine Station, without detention of either vessel or persons longer than may be necessary to place such vessel in perfect sanitary condition.

Vessels engaged in the tropical fruit trade and coming from known non-infected ports whose sanitary condition and health record are satisfactory may be allowed to pass the quarantine station after inspection, subject, however, to such regulations and sanitary treatment as the board of health may prescribe.

Vessels of the second and third classes to undergo the same conditions as those of the first class, together with detention for observation for a period of three full days from hour of completion of sanitation.

Vessels of the fourth class to be remanded to the lower quarantine station, there to undergo sanitation and detention of vessels and persons such length of time as the board of health may determine.

All vessels arriving from ports known or suspected to be infected with cholera or smallpox, or which may hereafter become infected, shall be subjected to maritime sanitation and such detention as the board of health may determine.

Vessels arriving from the above-named ports and places and belonging to the second, third, and fourth classes as set forth in the above schedule, shall not be allowed to pass the Rigolets, the Atchafalaya, the Lake Borgne Canal or Lake Charles quarantine stations or other State quarantine stations which may hereafter be established, without having undergone a period of detention of forty days and thorough cleaning and disinfection.

Special suggestions to owners, agents, masters of vessels, and passengers are published by the Louisiana State board of health, and are the same as those in Vol. V, ABSTRACT No. 18, May 2, 1890.

Vessels that have refused or neglected to take bills of health, as reported by the United States consul.

American steamship *Seguranca*, from Barbadoes, W. I., for New York, March 31.

British steamship *Barnby*, from Barbadoes for New York, April 9.

NOTE.—Quarantine officers should regard such vessels with suspicion, for refusal to take a bill of health is generally because a clean bill can not be granted.

Reports of States, and yearly and monthly reports of cities.

CALIFORNIA—*San Francisco*.—Month of March, 1891. Population, 298,997. Total deaths, 603, including phthisis pulmonalis, 101; enteric fever, 10; diphtheria, 49; and whooping cough, 2.

MASSACHUSETTS—*Worcester*.—Month of March, 1891. Population, 84,655. Total deaths, 114, including phthisis pulmonalis, 16; scarlet fever, 1; and diphtheria, 1.

MICHIGAN.—Week ended April 12, 1891. Reports to the State board of health, Lansing, from 54 observers, indicate that cerebro-spinal meningitis, diphtheria, inflammation of brain, typho-malarial fever, inflammation of kidney, remittent fever, intermittent fever, and diarrhoea increased, and that puerperal fever, inflammation of bowels, whooping cough, typhoid fever, and membranous croup decreased in area of prevalence.

Diphtheria was reported present, during the week, at 14 places, scarlet fever at 32 places, enteric fever at 4 places, and measles at 39 places.

Detroit.—Month of March, 1891. Population, 205,876. Total deaths, 371, including phthisis pulmonalis, 38; influenza, 3; scarlet fever, 1; diphtheria, 36; membranous croup, 12; and whooping cough, 1.

NEW JERSEY—*Hudson County*.—Year of 1890. Population, 275,126. Total deaths, 7,059, including enteric fever, 171; scarlet fever, 63; diphtheria, 420; measles, 18; and whooping cough, 55.

WISCONSIN—*Smallpox*.—The Secretary of the State board of health reports 1 case of smallpox at Wright's Ferry, Crawford County, and states that every possible precaution will be taken to prevent spreading of the disease.

Publications received.

State board of health bulletin, Tennessee, Vol. 6, No. 9.

The Quarterly Journal of Inebriety.

Annual report of the health department of Richmond, Va., 1890.

Annual report of the board of control, St. Paul, Minn., 1890.

Thirteenth report of the State board of health of Minnesota, 1889-'90.

Annual report to the board of health of the city of Los Angeles, year ended November 30, 1890.

ACKNOWLEDGMENT OF THE ABSTRACT NECESSARY FOR ITS CONTINUED RECEIPT.

In view of the impossibility of supplying all the demands for this publication, the Bureau will adopt the following rule with regard to furnishing the ABSTRACT to boards of health, health officers, and others, the rule, however, not applying to medical officers of the Marine-Hospital Service:

Persons and boards of health to whom the ABSTRACT is addressed weekly are requested to make acknowledgment of its receipt, and when no such acknowledgment shall be made within the fiscal year, it will be considered as practically giving notice that a continuance of the ABSTRACT is not desired, and in these cases the names will be withdrawn from the mailing list.

MORTALITY TABLE, CITIES OF THE UNITED STATES.

Cities.	Week ended.	Population, U. S. Census of 1890.	Total deaths from all causes.	Deaths from—									
				Phthisis pulmonalis.	Yellow fever.	Smallpox.	Varicella.	Varicella.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.
Philadelphia, Pa.	Apr. 18.	1,046,964	474	.....	1	.....	.....	.....	22	5	10	.....	.....
Brooklyn, N. Y.	Apr. 18.	806,343	697	57	.....	.....	.....	.....	.....	15	17	4	3
Brooklyn, N. Y.	Apr. 25.	806,343	577	46	.....	.....	.....	.....	4	12	16	9	5
Boston, Mass.	Apr. 25.	448,477	188	28	.....	.....	.....	.....	.....	4	4	.....	3
Baltimore, Md.	Apr. 25.	434,439	206	26	.....	.....	.....	.....	1	2	1	.....	1
San Francisco, Cal.	Apr. 18.	298,997	128	21	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cincinnati, Ohio	Apr. 24.	296,908	143	16	.....	.....	.....	.....	5	1	.....	.....	.....
Cleveland, Ohio	Apr. 18.	261,353	170	14	.....	.....	.....	.....	4	1	4	.....	2
Buffalo, N. Y.	Apr. 14.	255,664	185	17	.....	.....	.....	.....	1	.....	.....	.....	.....
Buffalo, N. Y.	Apr. 21.	255,664	197	15	.....	.....	.....	.....	2	1	.....	1	1
New Orleans, La.	Apr. 11.	242,039	110	15	.....	.....	.....	.....	.....	.....	1	1	.....
New Orleans, La.	Apr. 18.	242,039	119	22	.....	.....	.....	.....	.....	1	4	2	.....
Detroit, Mich.	Apr. 25.	205,876	80	6	.....	.....	.....	.....	.....	1	2	2	.....
Minneapolis, Minn.	Apr. 25.	164,738	44	.....	.....	.....	.....	.....	.....	.....	2	.....	.....
Louisville, Ky.	Apr. 25.	161,129	73	5	.....	.....	.....	.....	2	.....	3	1	.....
Rochester, N. Y.	Apr. 25.	133,896	47	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Providence, R. I.	Apr. 25.	132,146	48	.....	.....	.....	.....	.....	1	1	1	.....	.....
Denver, Col.	Apr. 24.	106,713	58	.....	.....	.....	.....	.....	.....	1	4	1	.....
Indianapolis, Ind.	Apr. 17.	105,436	.....	2	.....	.....	.....	.....	1	.....	.....	.....	.....
Indianapolis, Ind.	Apr. 27.	105,436	66	7	.....	.....	.....	.....	.....	.....	2	1	.....
Toledo, Ohio	Apr. 24.	81,434	29	3	.....	.....	.....	.....	.....	.....	1	.....	.....
Richmond, Va.	Apr. 25.	81,388	32	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nashville, Tenn.	Apr. 25.	76,168	34	.....	.....	.....	.....	.....	1	.....	.....	1	.....
Portland, Me.	Apr. 25.	36,425	11	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
Binghamton, N. Y.	Apr. 25.	35,005	11	3	.....	.....	.....	.....	2	.....	.....	.....	.....
Yonkers, N. Y.	Apr. 11.	32,033	24	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Yonkers, N. Y.	Apr. 18.	32,033	18	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Yonkers, N. Y.	Apr. 25.	32,033	21	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mobile, Ala.	Apr. 25.	31,076	9	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Galveston, Tex.	Apr. 3.	29,084	13	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
Galveston, Tex.	Apr. 10.	29,084	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Galveston, Tex.	Apr. 17.	29,084	10	1	.....	.....	.....	.....	.....	1	.....	.....	.....
Auburn, N. Y.	Apr. 25.	25,858	8	3	.....	.....	.....	.....	.....	.....	.....	1	.....
Newton, Mass.	Mar. 28.	24,379	11	2	.....	.....	.....	.....	.....	1	.....	.....	.....
Newton, Mass.	Apr. 4.	24,379	8	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Newton, Mass.	Apr. 11.	24,379	6	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Newport, R. I.	Apr. 23.	19,457	11	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
San Diego, Cal.	Apr. 18.	16,159	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Shreveport, La.	Apr. 18.	11,979	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pensacola, Fla.	Apr. 18.	11,750	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

a Fifteen deaths from influenza.

b Five deaths from influenza.

Table of temperature and rainfall, week ended April 24, 1891.

[Received from War Department, Signal Office.]

Locality.	Mean temperature in degrees Fahrenheit.			Rainfall in inches and hundredths.		
	Normal.	Excess.	Deficiency.	Normal.	Excess.	Deficiency.
New England States:						
Eastport, Me.....	41			.76		.43
Portland, Me.....	44	56		.70		.20
Boston, Mass.....	47	70		.82		.72
Block Island, R. I.....	46	34		.70		.38
Middle Atlantic States:						
Albany, N. Y.....	49	70		.61		.31
New York, N. Y.....	51	84		.77		.27
Philadelphia, Pa.....	53	84		.63		.53
Atlantic City, N. J.....	49	42		.74		.22
Baltimore, Md.....	55	75		.75		.33
Washington, D. C.....	55	82		.70		.14
Lynchburg, Va.....	58	70		.71		.15
Norfolk, Va.....	58	56		.98		.82
South Atlantic States:						
Charlotte, N. C.....	62	56		.85		.09
Wilmington, N. C.....	63	28		.70		.41
Charleston, S. C.....	66	28		.94		.90
Augusta, Ga.....	66	42		.84		.82
Savannah, Ga.....	68	14		.86	.03	
Jacksonville, Fla.....	70	14		.76		.10
Key West, Fla.....	77		14	.31	.03	
Gulf States:						
Atlanta, Ga.....	63	42		.84		.56
Pensacola, Fla.....	69	14		.83		.83
Mobile, Ala.....	69	14		1.10		.64
Montgomery, Ala.....	68	14		1.22		.42
Vicksburg, Miss.....	68	28		1.51	.51	
New Orleans, La.....	71			1.21		1.01
Shreveport, La.....	69			1.31	.25	
Fort Smith, Ark.....	64	28		1.43	.76	
Little Rock, Ark.....	65	42		1.16		.40
Palestine, Tex.....	64		26	.99	3.53	
Galveston, Tex.....	71		14	.71	.75	
San Antonio, Tex.....	71	26		.79	2.33	
Corpus Christi, Tex.....	71	14		.43	.70	
Brownsville, Tex.....	75			.30		
Rio Grande City, Tex.....	78			.35		
Ohio Valley and Tennessee:						
Memphis, Tenn.....	64	56		1.33		.64
Nashville, Tenn.....	62	56		1.14	.03	
Chattanooga, Tenn.....	63	56		1.05	.15	
Knoxville, Tenn.....	60	55		1.17	.29	
Louisville, Ky.....	59	70		1.02		.05
Indianapolis, Ind.....	54	84		.83		.64
Cincinnati, Ohio.....	56	70		.70		.41
Columbus, Ohio.....	54	70		.76	.19	
Pittsburgh, Pa.....	53	70		.63		.49
Lake Region:						
Oswego, N. Y.....	44	42		.49		.45
Rochester, N. Y.....	46	70		.56		.55
Buffalo, N. Y.....	44	38		.58		.55
Erie, Pa.....	46	56		.65		.51
Cleveland, Ohio.....	47	70		.55		.37
Sandusky, Ohio.....	48	56		.56	.03	
Toledo, Ohio.....	49	62		.55		.40
Detroit, Mich.....	48	56		.50		.26
Port Huron, Mich.....	43	56		.46		.38
Alpena, Mich.....	39	56		.49		.24
Marquette, Mich.....	39	42		.49		.33
Grand Haven, Mich.....	46	42		.57		.01
Milwaukee, Wis.....	46	42		.64		.35
Chicago, Ill.....	48	42		.77		.15
Duluth, Minn.....	40	28		.57	.05	
Upper Mississippi Valley:						
St. Paul, Minn.....	49	42		.59		.05
La Crosse, Wis.....	50	42		.49	.49	
Dubuque, Iowa.....	51	56		.71		.15
Davenport, Iowa.....	52	56		.66	.86	
Des Moines, Iowa.....	53	56		.69	.15	
Keokuk, Iowa.....	55	56		.70	.78	
Springfield, Ill.....	56	56		.79		.22
Cairo, Ill.....	61	56		.91		.61
St. Louis, Mo.....	59	56		.77		.11

Table of temperature and rainfall, week ended April 24, 1891—Continued.

Locality.	Mean temperature in degrees Fahrenheit.			Rainfall in inches and hundredths.		
	Normal.	Excess.	Deficiency.	Normal.	Excess.	Deficiency.
Missouri Valley:						
Springfield, Mo.....	59	42	.....	1.07	.47	.....
Kansas City, Mo.....	57	56	.....	.81	.29	.....
Concordia, Kans.....	56	57	.....	.81		.09
Omaha, Nebr.....	54	56	.....	.74	.14	.....
Valentine, Nebr.....	49	42	.....	.57	1.57	.....
Huron, S. D.....	49	56	.....	.72	.56	.....
Sully, Fort, S. D.....	51	37	.....	.42	1.90	.....
Extreme Northwest:						
Moorhead, Minn.....	43	84	.....	.49		.13
Bismarck, N. D.....	45	70	.....	.56	.14	.....
Buford, Fort, N. D.....	46	56	.....	.33		.15
Rocky Mountain Slope:						
Assiniboine, Fort, Mont.....	46	42	.....	.21		.16
Helena, Mont.....	47	56	.....	.28	.06	.....
Custer, Fort, Mont.....	49	39	.....	.30		.....
Salt Lake City, Utah.....	53	14	.....	.56		.56
Cheyenne, Wyo.....	45	28	.....	.35	.37	.....
North Platte, Nebr.....	52	42	.....	.59	1.43	.....
Denver, Colo.....	50	14	.....	.52	.64	.....
Montrose, Colo.....	51		14	.38	.06	.....
Pueblo, Colo.....	53			.42		.30
Dodge City, Kans.....	56	42	.....	.51	.69	.....
Sill, Fort, Ind. T.....	64			.79	2.45	.....
Santa Fe, N. Mex.....	50		14	.16		.16
Pacific Coast:						
Olympia, Wash.....	50		10	.77	1.23	.....
Portland, Oreg.....	54		13	.70	.96	.....
Roseburg, Oreg.....	53	14		.62		.22
Red Bluff, Cal.....	61	2		.53		.45
Sacramento, Cal.....	60			.63		.63
San Francisco, Cal.....	56		21	.47		.47
Los Angeles, Cal.....	61		14	.39		.37
San Diego, Cal.....	59			.21		.00
Yuma, Ariz.....	70					

FOREIGN.

(Reports received through the Department of State and other channels.)

Professor Koch's reported views regarding the action and administration of tuberculin—Experiments in immunization.

Passed Assistant Surgeon J. J. Kinyoun, M.-H. S., transmits the following from Berlin, dated April 11, 1891:

I have the honor to report to you that my studies in the Hygienic Institute of Berlin have progressed in a very satisfactory manner during the past week. My work has been chiefly on the same lines as already reported to you, viz, immunization of animals susceptible to certain diseases. Behring and Kitasato are still pursuing their investigations on diphtheria and tetanus. Hankin has just published articles on immunization, and claims to have isolated from the blood serum of certain animals a certain body, which he designates as a defensive proteid. He also makes the statement that in animals suffering from acute infectious diseases there appears a large quantity of this "defensive proteid," which, if isolated, has the power of conferring immunity upon susceptible animals. He further suggests that the blood, especially from the spleen of rats, can be used as a means of immunizing persons against diphtheria and such diseases. Experimentally this has been done in regard to anthrax in the smaller animals. If his claims are substantiated by further observation, the same principle can be used in acquiring immunity to such diseases as smallpox, measles, and yellow fever.

Quite a variety of opinions exist as to where and who originated the theory and who was first to put it in practice. The Germans are anxious to claim priority; so also is Hankin. So far as I can learn, the French are those who first instituted the theory and put it into practice.

I have had during the past week a long interview with Professor Koch concerning the administration of tuberculin. It is his opinion that the dosage which he has heretofore recommended is entirely too large; also the reaction which he has thought necessary to produce after the injection is not only unnecessary, but harmful, and the large and increasing dosage has no doubt been responsible for many of the disasters which have followed its administration. To this conclusion he has arrived after a most careful analysis of the cases under his immediate supervision at the Moabit Hospital and from letters received from a great number of medical men from all parts of the world. He states that no definite quantity of tuberculin can be given as a fixed dose, for to produce the same result in every case a variable quantity must be given. Each patient is a law unto himself, either quite susceptible or resistant to a given quantity of the remedy. The object to be attained in the treatment of any form of tuberculosis is to bring about the condition of irritation of the tissues surrounding the tubercular masses. This must not be pushed to the point of causing necrosis of the cells to take place, or of impairing the nutrition or function of the cells of such tissue. Every effort should tend to assist the natural processes. By bringing about this condition of localized irritation there is an increase of leucocytes, an increase of blood which means increased nutrition, and last, and not the least, an increase of the bac-

tericidal property of the blood serum upon the bacilli. He states that by the increased nutrition the leucocytes take on higher development, and fibrous tissue is formed—the ideal to be hoped for. He further states that this theory has been put into operation in the treatment of a large number of cases of tuberculosis, and so far has given the most gratifying results. All cases have improved, the unfavorable with the favorable; all have gained in weight and strength. The dosage in each case has been one infinitely smaller than was at first given, usually about 0.0001 gram daily, and *not increased*. It is his present opinion that this is the correct theory and manner of its administration. Still this would have to be tried and proven further before a definite opinion could be formed.

He would in no case have a "reaction" of 38°, for he thinks that a temperature as high as this is not without danger, if continued. It has been his aim in the treatment of cases latterly to have little or no reaction. Those which have shown such a marked improvement have had no more than 37.6° C. from the administration.

In the commencement of the treatment in any case, whether lupus or tubercle of lung, he would not recommend as a rule a larger dose than 0.001 gram, which should only be given as a trial dose; then should the remedy produce the febrile symptoms and a temperature of or above 38° C., he would recommend that the dose be further diluted to 0.0001 and this quantity be given daily. Should he find the initial dose not producing the reaction, this may be given instead of diluting it to one-tenth (or .0001 gram).

At the close of the interview he stated that he thought that the remedy (tuberculin) is the best medicament for treatment of tuberculosis. Even should the remedy prove beneficial in 5 per cent. of all cases, it would then be far superior to any other known treatment for this malady. He also stated that he would still pursue the same line of investigation, and if possible by future observation to improve the lymph he would do so.

From the interview I would say that Professor Koch is not entirely satisfied with the remedy, but is still pursuing the same course as formerly; in other words, he does not consider his work completed. He has designated a line of work for me to follow, which is to make a comparative test of tuberculin in small doses and doses which are to be increased from time to time.

In regard to Liebrich's method of treatment, it has been tried extensively in the wards of Charité, but nothing definite has been accomplished. Quite a large number of cases of tubercle are now under treatment at Charité on the line laid down by Koch, but this has only been instituted during the past two weeks.

Very respectfully,

JOS. J. KINYOUN,
P. A. Surgeon, M.-H. S.

BRAZIL—*Bahia*.—The United States consul, under date of February 24, reports the good health of Bahia and adjacent country.

CUBA—*Havana*.—*Smallpox*.—Week ended April 18, 1891. The United States sanitary inspector reports 5 deaths from smallpox during the week.

EGYPT.—Week ended March 26, 1891. The towns in upper and lower Egypt, including Gizeh and the Suez Canal, show a total of 803 deaths, including phthisis pulmonalis, 60; enteric fever, 27; smallpox, 3; measles, 5; and whooping cough, 7.

FRANCE—Rouen.—Month of February, 1891. Population, 106,496. Total deaths, 242, including phthisis pulmonalis, 53; croup, 5; measles, 11; and whooping cough, 6.

GREAT BRITAIN—England and Wales.—The deaths registered in 28 great towns of England and Wales during the week ended April 11 corresponded to an annual rate of 22.9 a thousand of the aggregate population, which is estimated at 9,715,559. The lowest rate was recorded in Brighton, viz, 18.3, and the highest in Hull, viz, 42.5 a thousand.

London.—One thousand seven hundred and twenty-three deaths were registered during the week, including measles, 38; scarlet fever, 11; diphtheria, 26; whooping cough, 61; enteric fever, 10; and diarrhoea and dysentery, 11. The deaths from all causes corresponded to an annual rate of 20.0 a thousand. Diseases of the respiratory organs caused 464 deaths. In greater London 2,121 deaths were registered, corresponding to an annual rate of 18.8 a thousand of the population. In the "outer ring" the deaths included measles, 7; whooping cough, 8; and diphtheria, 9.

Newcastle-upon-Tyne.—Two weeks ended April 4, 1891. Population, 163,000. Total deaths, 2, including enteric fever 1 and diphtheria 1.

Ireland.—The average annual death rate, represented by the deaths registered during the week ended April 11, in the 16 principal town districts of Ireland, was 27.0 a thousand of the population. The lowest rate was recorded in Drogheda, viz, 8.5, and the highest in Sligo, viz, 48.1 a thousand. In Dublin and suburbs 207 deaths were registered, including enteric fever, 5; diphtheria, 1; and whooping cough, 2.

Scotland.—The deaths registered in eight principal towns during the week ended April 4 corresponded to an annual rate of 25.0 a thousand of the population, which is estimated at 1,345,563. The lowest mortality was recorded in Perth, viz, 15.4, and the highest in Paisley, viz, 52.5 a thousand. The aggregate number of deaths registered from all causes was 653, including measles, 33; scarlet fever, 4; diphtheria, 5; whooping cough, 25; fever, 6; and diarrhoea, 7.

HONDURAS—Tegucigalpa—Smallpox.—Under date of March 21, the United States consul at Tegucigalpa reports 35 known cases in that city, which has a population of 10,000. In the departments on the north, especially Olancho, the disease is prevalent and increasing. The authorities have adopted the usual measures for stamping out the disease.

INDIA.—*Calcutta—Cholera.*—The United States consul-general, under dates of March 11 and 24, reports as follows:

	Deaths.
<i>Cholera.</i> —Week ended February 14, 1891	183
February 28, 1891.....	94
March 7, 1891.....	51
March 14, 1891.....	27

ITALY.—Month of February, 1891. Total number of deaths, 11,133, including smallpox, 32; enteric fever, 160; scarlet fever, 48; diphtheria, 165; typhus fever, 3; measles, 253; and whooping cough, 52.

NETHERLANDS.—Month of January, 1891. Reports from the 12 principal cities, having an aggregate population of 1,172,989, show a total of 3,147 deaths, including typhus and enteric fevers, 11; scarlet fever, 4; measles, 81; croup, 52; and whooping cough, 51.

TURKEY.—*Constantinople—Smallpox.*—Month of January, 1891. Total deaths, 1,218, including smallpox 58.

MORTALITY TABLE, FOREIGN CITIES.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—								
				Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
London.....	Apr. 4.....	5,877,390	2,230	.....	.....	2	.....	8	11	29	51	68
Paris.....	Apr. 4.....	2,260,945	1,217	.....	.....	.....	.....	11	7	44	35	11
Vienna.....	Mar. 21.....	1,368,156	688	.....	.....	21	.....	1	1	17	11	3
Vienna.....	Mar. 28.....	1,368,156	744	.....	.....	24	.....	2	9	24	14	1
Liverpool.....	Mar. 28.....	620,443	273	.....	.....	.....	.....	2	2	.....	.....	.....
Hamburg.....	Apr. 4.....	570,534	269	.....	.....	.....	.....	2	3	1	.....	.....
Glasgow.....	Apr. 4.....	545,678	308	.....	.....	.....	.....	2	4	2	.....	.....
Brussels.....	Apr. 4.....	469,459	215	.....	.....	13	.....	4	1	1	.....	.....
Warsaw.....	Mar. 28.....	455,832	193	.....	.....	1	.....	1	2	9	.....	.....
Amsterdam.....	Mar. 22.....	417,542	241	.....	.....	1	.....	1	.....	8	.....	.....
Amsterdam.....	Mar. 29.....	417,542	244	.....	.....	.....	.....	.....	.....	.....	.....	.....
Amsterdam.....	Apr. 4.....	417,542	226	.....	.....	.....	.....	1	.....	.....	.....	.....
Rome.....	Mar. 14.....	417,392	290	.....	.....	.....	.....	3	.....	6	15	5
Lyons.....	Apr. 4.....	401,930	194	.....	.....	.....	.....	1	.....	7	.....	.....
Leipzig.....	Apr. 4.....	360,671	132	.....	.....	.....	.....	4	3	7	.....	.....
Munich.....	Mar. 28.....	348,000	238	.....	.....	.....	.....	2	1	12	.....	.....
Copenhagen.....	Mar. 28.....	312,887	117	.....	.....	.....	.....	.....	1	4	.....	.....
Odessa.....	Mar. 21.....	295,000	143	.....	.....	.....	.....	1	3	3	2	1
Cologne.....	Mar. 28.....	282,385	150	.....	.....	2	.....	.....	1	6	.....	4
Dresden.....	Mar. 28.....	276,085	111	.....	.....	.....	.....	1	1	2	.....	.....
Edinburgh.....	Mar. 28.....	275,436	136	.....	.....	.....	.....	1	3	1	.....	.....
Barcelona.....	Apr. 3.....	272,000	192	.....	.....	8	.....	9	.....	.....	.....	.....
Barcelona.....	Apr. 10.....	272,000	203	.....	.....	6	.....	1	5	.....	.....	.....
Palermo.....	Apr. 4.....	250,000	112	.....	.....	6	.....	2	.....	2	.....	.....
Antwerp.....	Apr. 4.....	238,783	126	.....	.....	.....	.....	.....	1	1	.....	.....
Bristol.....	Apr. 4.....	235,171	100	.....	.....	.....	.....	1	.....	1	.....	.....
Rotterdam.....	Apr. 11.....	209,137	90	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pernambuco.....	Mar. 3.....	200,000	58	.....	.....	6	.....	.....	.....	.....	.....	.....
Pernambuco.....	Mar. 10.....	200,000	73	.....	.....	3	.....	.....	.....	.....	.....	.....
Prague.....	Apr. 4.....	183,085	129	.....	.....	1	.....	2	3	2	.....	.....
Genoa.....	Apr. 11.....	180,498	121	.....	.....	2	.....	.....	1	3	.....	.....
Hanover.....	Mar. 28.....	168,500	66	.....	.....	.....	.....	.....	.....	7	.....	.....
Konigsberg.....	Apr. 5.....	161,200	61	.....	.....	.....	.....	.....	.....	1	.....	.....
Trieste.....	Mar. 28.....	158,054	85	.....	.....	.....	.....	.....	.....	5	.....	.....
Venice.....	Apr. 4.....	158,019	77	.....	.....	.....	.....	2	1	.....	.....	.....
Ghent.....	Apr. 4.....	152,395	80	.....	.....	.....	.....	3	.....	1	2	1
Nuremberg.....	Mar. 21.....	142,523	67	.....	.....	.....	.....	.....	1	2	.....	.....
Stuttgart.....	Apr. 4.....	139,659	58	.....	.....	.....	.....	.....	.....	7	.....	.....

MORTALITY TABLE, FOREIGN CITIES—CONTINUED.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—								
				Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Hioغو	Jan. 10....	136,012	85				1					
Hioغو	Jan. 17....	136,012	78							2		
Hioغو	Jan. 24....	136,012	78				1					
Hioغو	Jan. 31....	136,012	62				1					
Hioغو	Feb. 7....	136,012	50				1					
Hioغو	Feb. 14....	136,012	66									
Funchal	Mar. 28....	133,250	19									
Funchal	Apr. 4....	133,250	24					1				
Colombo	Mar. 15....	127,000			8							
Elberfeld	Mar. 28....	125,830	46							1	3	1
Bremen	Mar. 28....	125,000	36									
Cardiff	Mar. 28....	121,477	46							1		
Cardiff	Apr. 4....	121,477	53							1		
Danzig	Apr. 4....	120,000	56							1		
Barmen	Mar. 28....	116,248	51					1		3		1
Stettin	Apr. 4....	116,000	55					1	1	1		
Havre	Apr. 4....	112,074	54								1	
Crefeld	Apr. 4....	108,000	84							2		
Gothenburg	Apr. 4....	106,246	34									
Aix-la-Chapelle	Apr. 5....	104,048	54									
Leghorn	Apr. 5....	103,762	46							1		
Rhelnms	Apr. 11....	97,903	47									
Zurich	Mar. 28....	91,323	32					5	10	10		
Zurich	Apr. 4....	91,323	29					8	9	5	3	
Leith	Mar. 28....	80,736	23									
Mannheim	Apr. 4....	80,000	29						1			
Mayence	Mar. 21....	73,271	39							3		
Mayence	Mar. 28....	73,271	29							4		
Mayence	Apr. 4....	73,271	29							3		
Trapani	Apr. 4....	43,095	8									
Cienfuegos	Apr. 12....	41,647	14					2				
Marsala	Apr. 4....	40,131	17									
Schiedam	Apr. 11....	25,437	13									
Cartagena	Apr. 4....	25,000	7									
Vera Cruz	Apr. 9....	23,800	20									
Girgenti	Apr. 4....	23,547	10									
Guayaquil	Feb. 21....	22,000	53			6	13					
Guayaquil	Feb. 28....	22,000	58			2	26					
Guayaquil	Mar. 7....	22,000	62			6	25					
Victoria	Apr. 11....	20,000	5				3					
Licata	Apr. 4....	19,000	8									
Kingston, Can.	Apr. 17....	18,172	12									
Hamilton, Bermuda	Apr. 16....	15,740	2									
Sagua la Grande	Apr. 11....	15,605	12									
Flushing	Apr. 11....	13,200	7									
St. Thomas, W. I.	Mar. 20....	12,019	40									
St. Thomas, W. I.	Mar. 27....	12,019	33									
St. Thomas, W. I.	Apr. 3....	12,019	43							1		
St. Thomas, W. I.	Apr. 10....	12,019	57									
Sonneberg	Mar. 14....	11,600	8					1		2		
Sonneberg	Mar. 21....	11,600	6							1		
Sonneberg	Mar. 28....	11,600	3									
Sonneberg	Apr. 4....	11,600	3							1		
Queenstown	Apr. 11....	10,340	3									
Guelph	Apr. 20....	10,173	4									
Tuxpan	Apr. 4....	9,000	4									
Chatham	Apr. 18....	8,730	1									
La Guayra	Apr. 4....	7,641	4									
La Guayra	Apr. 11....	7,641	4									
Sarnia	Apr. 18....	6,200	1									
Colon	Apr. 16....	6,000	7					6				
Coaticook	Apr. 18....	3,800	1									
Governor's Harbor	Apr. 11....	1,100	1									

OFFICIAL:

JOHN B. HAMILTON,

Supervising Surgeon-General, Marine-Hospital Service.